

Attorney Docket No.: DEX-0117  
Inventors: Salceda et al.  
Serial No.: 09/721,183  
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*B<sup>2</sup>* gene in a particular tissue compared to the calibrator tissue. --

Please delete the Abstract at page 28 and replace it with the following:

*B<sup>3</sup>* -- Diagnostic markers for breast cancer referred to herein breast cancer specific genes or BCSGs are provided. Also provided are methods for using BCSGs to detect, diagnose, monitor, stage, prognosticate, image and treat breast cancer. Antibodies which specifically bind BCSGs and methods of using these antibodies to image and treat breast cancer are also provided. --

In the Claims:

Please cancel claims 1, 2 and 8-17, without prejudice.

{ Please amend the claims as follows: }

3. (amended) A method for diagnosing the presence of breast cancer in a patient comprising:

*Sub C<sub>1</sub>* (a) determining levels of Breast Cancer Specific Gene (BCSG) polynucleotide in cells, tissues or bodily fluids in a patient; and

(b) comparing the determined levels of BCSG polynucleotide with levels of BCSG polynucleotide in cells, tissues or bodily fluids from a normal human control, wherein an increase in determined levels of BCSG polynucleotide in said patient versus

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normal human control is associated with the presence of breast cancer.

4. (amended) A method of diagnosing metastases of breast cancer in a patient comprising:

(a) identifying a patient having breast cancer that is not known to have metastasized;

Sub  
C1  
(b) determining Breast Cancer Specific Gene (BCSG) polynucleotide levels in cells, tissues, or bodily fluid from said patient; and

By  
(c) comparing the determined BCSG polynucleotide levels with levels of BCSG polynucleotide in cells, tissue, or bodily fluid of a normal human control, wherein an increase in determined BCSG polynucleotide levels in the patient versus the normal human control is associated with breast cancer which has metastasized.

5. (amended) A method of staging breast cancer in a patient having breast cancer comprising:

(a) identifying a patient having breast cancer;

(b) determining Breast Cancer Specific Gene (BCSG) polynucleotide levels in a sample of cells, tissue, or bodily fluid from said patient; and

(c) comparing determined BCSG polynucleotide levels with levels of BCSG polynucleotide in cells, tissues, or bodily fluid of

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a normal human control, wherein an increase in determined BCSG polynucleotide levels in said patient versus the normal human control is associated with breast cancer which is progressing and a decrease in the determined BCSG polynucleotide levels is associated with breast cancer which is regressing or in remission.

Sub  
C<sub>1</sub>  
By  
6. (amended) A method of monitoring breast cancer in a patient for the onset of metastasis comprising:

(a) identifying a patient having breast cancer that is not known to have metastasized;

(b) periodically determining levels of Breast Cancer Specific Gene (BCSG) polynucleotide in samples of cells, tissues, or bodily fluid from said patient; and

(c) comparing the periodically determined BCSG polynucleotide levels with levels of BCSG polynucleotide in cells, tissues, or bodily fluid of a normal human control, wherein an increase in any one of the periodically determined BCSG polynucleotide levels in the patient versus the normal human control is associated with breast cancer which has metastasized.

7. (amended) A method of monitoring a change in stage of breast cancer in a patient comprising:

(a) identifying a patient having breast cancer;

(b) periodically determining levels of Breast Cancer

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Specific Genes (BCSG) polynucleotide in cells, tissues, or bodily fluid from said patient; and

Sub C1  
B7  
1  
(c) comparing the periodically determined BCSG polynucleotide levels with levels of BCSG polynucleotide in cells, tissues, or bodily fluid of a normal human control, wherein an increase in any one of the periodically determined BCSG polynucleotide levels in the patient versus the normal human control is associated with breast cancer which is progressing in stage and a decrease is associated with breast cancer which is regressing in stage or in remission.

(Please add the following new claims:)

18. The method of claim 3 wherein the BCSG polynucleotide comprises SEQ ID NO: 1, 2 or 18.

19. The method of claim 18 wherein the BCSG polynucleotide comprises SEQ ID NO:1.

B5  
20. The method of claim 18 wherein the BCSG polynucleotide comprises SEQ ID NO:2.

21. The method of claim 18 wherein the BCSG polynucleotide comprises SEQ ID NO:18.

22. The method of claim 4 wherein the BCSG polynucleotide comprises SEQ ID NO: 1, 2 or 18.

23. The method of claim 22 wherein the BCSG polynucleotide

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comprises SEQ ID NO:1.

24. The method of claim 22 wherein the BCSG polynucleotide comprises SEQ ID NO:2.

25. The method of claim 22 wherein the BCSG polynucleotide comprises SEQ ID NO:18.

26. The method of claim 5 wherein the BCSG polynucleotide comprises SEQ ID NO: 1, 2 or 18.

27. The method of claim 26 wherein the BCSG polynucleotide comprises SEQ ID NO:1.

28. The method of claim 26 wherein the BCSG polynucleotide comprises SEQ ID NO:2.

29. The method of claim 26 wherein the BCSG polynucleotide comprises SEQ ID NO:18.

30. The method of claim 6 wherein the BCSG polynucleotide comprises SEQ ID NO: 1, 2 or 18.

31. The method of claim 30 wherein the BCSG polynucleotide comprises SEQ ID NO:1.

32. The method of claim 30 wherein the BCSG polynucleotide comprises SEQ ID NO:2.

33. The method of claim 30 wherein the BCSG polynucleotide comprises SEQ ID NO:18.

34. The method of claim 7 wherein the BCSG polynucleotide